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## CLAIMS

Claims 1-36 are cancelled.

37. (New) A method comprising:

decrypting a sub-network layer packet to produce a decrypted sub-network layer packet;  
extracting a checksum from the decrypted sub-network layer packet;  
calculating a network layer checksum for a network layer packet comprising the sub-network layer packet  
comparing the checksum extracted from the decrypted sub-network layer packet with the network layer checksum; and  
detecting a loss of stream cipher synchronization if the network layer checksum does not match the checksum extracted from the decrypted sub-network layer packet.

38. (New) The method of claim 37, wherein detecting a loss of stream cipher synchronization if the calculated checksum does not match a checksum extracted from the decrypted data packet further comprises:  
a network layer of a protocol stack detecting the loss of stream cipher synchronization when the network layer checksum does not match the checksum extracted from the decrypted sub-network layer packet.

39. (New) The method of claim 37, further comprising:  
the network layer checksum and the checksum extracted from the decrypted sub-network packet both for a network layer data payload.

40. (New) The method of claim 37, further comprising:  
re-synchronizing a stream cipher with a transmitter of the encrypted sub-network packet if the network layer checksum does not match the checksum extracted from the decrypted sub-network packet.

41. (New) A method comprising:

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calculating a network layer checksum for a network layer packet;  
including the network layer checksum in a sub-network layer packet; and  
encrypting the sub-network layer packet and including the encrypted sub-network layer  
packet as part of the network layer packet.

42. (New) A method comprising:

calculating a checksum for a packet of a first communication layer; and  
including the checksum in an encrypted packet of a second communication layer lower  
than the first communication layer.

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